

# THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



## **VOLKSWAGEN AMAROK**

4WD Diesel Models – 4cyl & V6 Only (Inc AdBlue) Including Dual, Extra and Single cab

TR76L- 145 L Replacement Tank
TR76S - 120L Replacement Tank

#### **GENERAL NOTES**

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- a) Fitting time is approximately 2.5hrs. No major vehicle modifications are required. This LONG RANGER tank locates under the vehicle in place of the standard tank.
- b) A hoist is not essential but will speed the job up significantly.
- c) The original filler, fuel level sender unit and pick-up unit are reused in this installation. Extreme care and cleanliness is recommended when handling fuel level sender and submerged fuel pump units. Inspect any components that are to be reused from the original tank installation for serviceability and replace any item found to be defective.
- d) Check if the vehicle owner wants to retain the original tank and any associated parts.
- e) Both of the TR76 tanks have an upwards taper on the leading edge to assist in maximizing ramp over clearance. The main body of the TR76S offers approximately 30mm higher ground clearance than the OEM tank. The TR76L main body is approximately 15mm lower than the OEM.
- f) LONG RANGER tanks are coated with a high-performance primer. For added protection, a topcoat may be added. If the vehicle has been rustproofed, it is suggested that the tank (and any changes made to the vehicle during fitting) be touched up after installation.
- g) The trip meter distance to empty will no longer work as intended by the manufacturer.
- h) Ensure all fasteners are torqued to correct tension as per the table in the installation kit

Observe all fuel handling & safety precautions during the installation of the LONG RANGER fuel tank

## **INSTALLATION KIT TR76**

QT	Y	DESCRIPTION
à		LONG RANGER Tank #TR76L
	1	LONG RANGER Tank #TR76S
	1	Rubber Filler Hose #TA70DFH1
	1	Clamp Ring #TR76CR
	3	U-bolt M10 x 95Lx70W #FAUBOLTR76
	6	Nyloc Nut M10
	6	Flat Washer M10 x 20
	6	Screw M5 x 12mm Pan/Phil
	8	Hose Clamp #MH8
	2	Hose Clamp #MH24
		Tee Piece – 16mm Plastic #PLTE16MM
	1	Fuel Hose 16mm x 480mm (Link Breather - Front)
		Fuel Hose 16mm x 420mm (Link Breather - Middle)
		Fuel Hose 16mm x 220mm (Link Breather - Rear)
		Fuel Hose 16mm x 400mm (Link Breather – Fast Fill)
	1	Fuel Hose 10mm x 670mm (4cyl Pickup)
	1	Fuel Hose 8mm x 695mm (4cyl Return)
		Plastic Bag 550mm long
	1	Fitting Instructions '
	1	Warranty Information Sheet And Return Card
	1	LONG RANGER sticker
	1	Owner's Manual Update Sticker





Fastener Size	Recommended Torque (Nm)	Recommended Torque (lbft)
M6 Class 8.8	9 Nm	7 lbft
M8 Class 8.8	22 Nm	16 lbft
M10 Class 8.8	44 Nm	32 lbft
M12 Class 8.8	77 Nm	57 lbft
M10 U-Bolt	17 Nm	12 lbft

#### **INSTALLATION GUIDE**

- 1. Take a few minutes to read through this installation guide before proceeding.
- 2. Check that all items listed in the LONG RANGER kit have been received, and that nothing has been damaged in transit.
- 3. The LONG RANGER tank has been cleaned and sealed at the factory, it is recommended that its interior be thoroughly checked just prior to fitting the fuel pickup unit as an added precaution against blocked filters and/or fuel pump damage.
- 4. If parts are missing or damaged, if foreign matter is found in the tank, or if any problems arise during installation, contact the factory office without delay for advice. Phone (02) 4953 3288, fax (02) 4953 1916 or email fitting@thelongranger.com.au. Our web page also contains an FAQ, so some of your questions may already be answered.
- 5. Apply the new owner's manual update sticker to page 305 (fuel capacities) of the vehicle manual.

#### **Removing the Factory Tank**

6. Loosen the 2 bolts on the clamp holding the rear section of the exhaust in place. Remove the rear exhaust section from the vehicle.



- 7. Mark both ends of the tail shaft to ensure correct re-assembly. Unbolt the tail shaft at the rear differential, slide out of the transfer case end and remove from the vehicle
- 8. Disconnect the rubber filler hose by removing the spring clamp from the hose and un-clipping the breather (squeeze clip) from the tank. Remove the wiring harness from the retainer on the rear of the tank.



- 9. Support the tank on an appropriate stand, remove the 5 mounting bolts and lower tank 150mm, being careful not to stretch any connections. <u>Note: Retain 2 tank strap bolts for re-use later.</u>
- 10.Disconnect sender harness (lift the red clip and pull connector up) then disconnect the 2 fuel lines (squeeze and pull type). Lower the tank clear of the vehicle. Note: Label the fuel lines for easy connection later.



#### **Preparing the Vehicle**

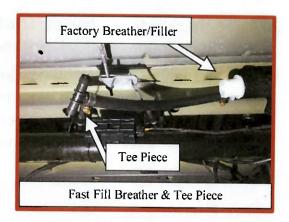
11. Remove the factory rubber elbow from the filler assembly and cut the white breather from the filler neck using a razor blade.



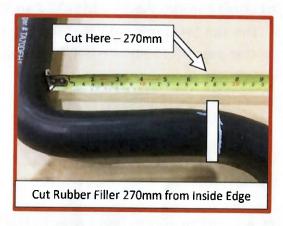
- 12. Follow the rear differential breather line up to where it mounts into the cross member, pull the tube from the rubber mount and remove the rubber mount from the cross member.
- 13.Re-install the differential breather in the side of the chassis in the small round hole above the passenger side bump stop. <u>Note: Silicone spray will aid seating the rubber grommet.</u>



14. Fit the supplied 400mm section of 16mm fuel hose to the fast fill breather pipe on the vehicle. Attach the plastic 16mm tee piece to the other end. Clamp in place using supplied MH8 hose clamps.



15.Cut the supplied rubber filler hose (TA70DFH1) section 270mm from the inside bend. Fit the now modified hose to the vehicle with the longer leg attached to the filler assembly using the supplied MH24 hose clamp.



#### **Preparing the LONGRANGER Tank**

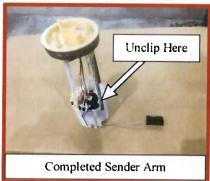
16. Using a hammer and punch tap the sender retaining ring counter-clockwise to loosen.

Remove the sender unit from the factory tank.

Note:- ensure the area is clean to minimise risk of debris entering the fuel



17. Unclip the float arm from the sender unit. Straighten the sender arm at the lower 90 degree bend. Reinstall onto the sender unit





- 18.Lower the sender unit into the LONGRANGER tank with the float arm roughly facing the rear of the tank.
- 19. With the sender unit partially lowered in, slide the gasket off the sender and fit into the tank, finalise the orientation so that the wiring plug is parallel to side of the tank and seat the sender unit into the O-ring.



20. Using the supplied 6 - M5x12 Pan/Phil screws secure the sender clamp ring in place. Tighten screws in a star pattern to ensure even tension.



21.Attach the 16mm fuel hoses to the link breather outlets on the LONGRANGER tank in the following layout. All fixed with supplied MH8 hose clamps.

Rear - 220mm Section

Middle - 420mm Section

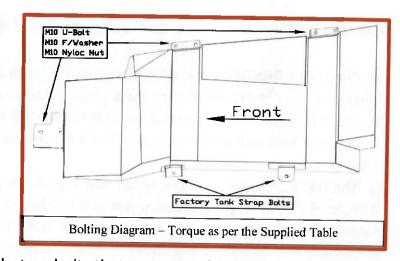
Front – 480mm Section



#### Fitting the LONGRANGER Tank to the Vehicle

- 22. With the help of another person lift the tank into the vehicle, rear up and over the diff first. Support it on an appropriate stand about 150mm low of its final position.
- 23.Re-connect the sender wiring harness and the 2 fuel lines ensuring correct fuel line orientation. *Note: an audible click will be heard when fuel lines are correctly seated.*Note: for 4cyl model we have supplied new pickup and return hoses.
- 24. After ensuring that no wiring, fuel lines or pipes are in the way the tank can be raised into its final position.

- 25. Using the 3 supplied M10 U-bolts, flat washers and nyloc nuts, loop them over the 3 cross members and start all the nuts. Note:- On models with AdBlue the plastic clip on the cross member of the centre U-bolt needs to be removed
- 26. Move the tank into a position that allows the 2 passenger side mounts to align with the factory chassis brackets and install the 2 factory tank strap bolts that were saved earlier.



- 27. With everything in position tighten the 2 fixed bolts followed by the 3 U-bolts.
- 28. Route the front breather line over the cross member and connect to the front most outlet using the supplied MH8 hose clamp.



- 29.Connect the rear and middle breather to the tee piece fitted earlier with the supplied MH8 hose clamps. <u>Note: Ensure the breather lines are all clear of the handbrake cable.</u>
- 30. Connect the filler hose to the LONGRANGER tank using the supplied MH24 hose clamp.



- 31.Re-Fit the tail shaft to the vehicle ensuring alignment with the marks made before removal. Tension as per manufacturers specifications
- 32. Re-hang the rear exhaust section and slide the clamp over the joint, tighten as per the manufacturers specifications

### Explain to the owner the operation of the LONG RANGER TANK.

- a) The LONG RANGER tank will fill in a similar fashion to the tank it replaces, but the operator has the option of carrying a substantially larger quantity of fuel.
- b) Due to the different shape of the LONG RANGER tank the gauge will measure a larger quantity of fuel and will remain on *FULL* for a longer distance before slowly moving to *EMPTY*.
- c) The **trip computer** with distance (range) to empty will no longer accurately show the distance left to travel. The computer still thinks the tank only has 80lt and will not give a larger range reading with the new tank installed. It is suggested that the readings be cautiously interpreted along with the gauge until familiar with the new readings. As a rough guide the range will be approximately twice the distance shown.
- d) The quoted capacity of the LONG RANGER tank was determined by a bench test. The actual operating capacity may vary slightly from vehicle to vehicle.
- e) The vehicle manufacturer selected springs without accounting for a bigger fuel tank. Several suspension modification options are available.
- f) The LONG RANGER tank is a premium quality accessory that will provide many years of outstanding service provided that the Care and Maintenance items listed below are taken care of each time the vehicle is serviced.

Hand these instructions, together with the Warranty Registration card and warranty information, to the owner. Neatly apply the LONG RANGER sticker to the rear bumper or window.

#### **CARE AND MAINTENANCE**

- 1. After the first 1,000 kilometers, clean or replace the fuel filter, check that there is no rubbing or chafing of the tank, fuel hoses or associated components.
- 2. At each of the vehicle manufacturer's recommended services, check all fastenings for the correct tension, that rust preventative has been correctly applied where applicable, release the tank drain plug and confirm that there is no water present, and replace the fuel filter according to manufacturer's recommendations.